REMARKS

The above amendment and these remarks are responsive to the non-final Office Action of Examiner Kyung H. Shin of 9 Mar 2006.

Claims 1-7, 9-10, 13, and 15 are in the case, none as yet allowed.

35 U.S.C. 103

Claims 1-10, 13, and 15 have been rejected under 35 U.S.C. 103(a) over Salas et al (Salas, U.S. Patent 6,233,600) in view of Maurille (U.S. Patent 6,484,196) and further in view of Cutler et al. (U.S. Patent 5,129,083).

Applicants have canceled claim 8 and amended the independent claims.

Applicants agree with the Examiner [Response to Arguments, pages 2-3 of the Office Action] that the concepts of hierarchical trees and double linked lists were known in the field of computer science at the time of the invention. Similarly, there was some knowledge of access control,

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though much less known than hierarchical trees and double
linked lists.

However, applicants argue, it was not within the skill
of those of ordinary skill in the art in 1999 to combine the
Salas, Maurille, and Cutler references in the manner
suggested by the Examiner.

In 1999, collaborative applications such as were
developed by applicants were very few, and the application
of computer science concepts of hierarchical trees and
double linked lists to collaborative applications were not
well known to those practicing in the art of developing such
collaborative applications that use web technologies and
browsers as the primary platform of development. [See
specification, page 12, lines 1-7.] There simply were no
experts in collaborative software in 1999, much less those
of ordinary skill, to apply the combination of concepts of
trees and linked lists and access control to collaborative
applications.

What the Examiner has failed to show, applicants
contend, is how the combination of Salas, Maurille, and
Cutler teach the detailed structure of applicants claims.

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One such detail is having a master directory for the place from which to then choose individual entries for each of the subrooms. This concept, for example, is clearly stated in each of applicants claims:

> "said place having a first data note including a directory of members of said place and each subroom within said place having a data note associated therewith containing an access control list of members selected exclusively from said directory of members by a member of said place having manager authority...with access at any level of authority to a child place enabled only for those authorized to access a corresponding parent place..." [Claim 1, lines 8-14, 40-44, for example.]

Therefore, applicants traverse, and reassert the arguments set forth in the previous amendment, that the Examiner has not established a prima facie case of obviousness, but has rather used applicants' own disclosure as a road map for assembling teachings from the Salas, Maurille, and Cutler references.

That is, various teachings are drawn from these

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references in an apparent attempt to show all of the elements of applicants claims, yet they fail to do so at the level of specificity set forth in applicants claims.

Applicants collaboration space comprises a root place including a plurality of additional places (subrooms) linked by the double linked (forward and reverse pointers) construct set forth in the claims, with access control on the root place, each subroom, and on the forward pointers which, in combination, support increased, decreased, and maintained (the same) access to the subroom as that allowed on a parent room, and that access at any level of authority to a subroom is enabled only for those authorized to access the root room, together with a third access control provided on forward pointers to control whether the link to a child room will be enabled in its parent room for a specific user.

As demonstrated in the prior amendment, there is no teaching in Cutler, nor in Cutler in combination with Salas and Maurille, that a second access control list is provided for a subroom (each room and subroom is a separate quick place in a collaboration domain) in a hierarchy of rooms (or quick places) so as to enable increased, decreased, and maintained (the same) access to the subroom as that allowed

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by the access control list on the parent room, and that access at any level of authority to a subroom is enabled only for those authorized to access the root room, together with a third access control (readers field) on the forward pointer to control whether the link to a child room will be enabled in its parent room for a specific user.

In Applicants' invention, an access control list for the place in collaboration space is used for management of security of rooms within that space. That is, access to rooms within a place is limited to only those individuals listed in the access control list for the place. Thus, Applicants' invention provides a restrictive control over who may become a member of the various rooms within a place (that is, to whom managers can give access to rooms within the place.) This list of people are in the place main or root room of the hierarchy of rooms. A manager can only add to the access control list of a room or subroom individuals who are listed in the access control list of the root room of the hierarchy. This structure is brought out in the following references from the specification.

"Referring again to Figure 6, eight QuickPlace extensions 160 are enhancements made to the Domino web

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server 132 in order to support a QuickPlace
application. These extensions 160 are enabled only for
QuickPlace URLS; that is, they are enabled for URLs
that are targeted against a particular QuickPlace.
These extensions are: (1) shared design elements, (2)
database linkage, (3) commands, (4) publish and draft
model, (5) security and authentication, (6) forms and
fields, (7) decoration model), and (8) graphics
server." [Page 56, line 13 to page 57, line 1. Emphasis
added.]

"(2) Database linkage enables the grouping of a
number of databases in a hierarchical way. A place is
a collection of databases, and these need to be
represented in a parent child relationship. Data notes
represent the hierarchy to the database. There is a
data note in the parent database, and there is a data
note in the child database. The use of data notes for
these QuickPlace extensions as a way of representing
their functionality has the benefit that there are many
ways of manipulating them, whether it's with Java or
forms or the Notes designer. [Specification, page 57,
lines 12-21.]

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"(5) The security and authentication QuickPlace

extension is consistent with the QuickPlace model,

which provides three levels of security or roles:

reader, author, and manager. There exists a member

directory for each place. What this means is that each

place has its own set of members that visit it. The

Domino server is modified to perform local

authentication against that directory, making places

very portable, self-contained. And they don't collide

with other members in other places. A user, having

control of his own place member directory, set his own

security for access to that directory. [Page 59, line

15 to page 60, line 1. Emphasis added.]

"...a collaborative environment to be set up

without administrative support, that is by members of

the team itself, using a familiar and easy to use

browser user interface. Members of the team, acting

with manager or author authority, and using such a

browser interface without involving administrative or

application development support, need to be able to set

up a folder or room for each project element..."

[Specification, page 5, lines 7-15. Emphasis added.]

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"A room is created from a default room type template, PageLibrary.ntf, which provides indexing infrastructure for maintaining the pages in a room, and also security and authentication features so that access to a room can be limited to a subset of team members."   [Specification, page 55, line 16 ff. Emphasis added.]

Applicants contend that nowhere does Salas, Maurille, or Cutler, or their combination, teach that membership in an access control list control on a specific subroom in collaboration space is limited to members included in the access control list for the collaboration space.

None of the references cited, taken individually or in any combination, teaches this structure of a double linked list for linking rooms together in rooms (places) in collaboration space with ACL security on each room (place in collaboration space) and ACL security (readers fields) on forward pointers in the double linked list.

The Examiner refers to Salas col. 3, lines 49-51 and col. 13, lines 32-34 as teaching a readers field for providing access control list control on a forward pointer.

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Applicants traverse.   This is what Salas teaches:

"The server database 20 stores various tables which contain information about eRooms, members, access controls, and other data objects."   [Salas, Col. 3, lines 49-51.]

"For example, each object may be provided with a field or fields which identify users that may open, view, and edit the object."   [Salas, Col 13, lines 32-34.]

Applicants assert that there is no teaching here of an access control list, or readers field, on a specific forward pointer from a parent room to a child room, which ACL or readers field is distinct from the ACL for the parent room. Applicants structure of access control elements provides a readers field as part of the pointer which is distinct from the ACL on either the parent or the child room, and is an ACL control on the pointer itself used to specify whether a pointer to a child room (place) is enabled in its parent room (place).   Cutler teaches access control on objects generically, but does not teach using such in collaboration space, as previously stated.   Thus, neither Salas nor Maurille nor Cutler disclose or teach such a structure.

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The Examiner refers to Maurille as teaching forward pointers identifying a child room, but is silent as to the existence of an ACL control on that pointer [Maurille, Col. 6, lines 44-57]. However, applicants note, Maurille has no teaching of "room" entities, and only refers to a data schema including users, not rooms in collaboration space.

Consequently, the combination of Cutler, Salas and Maurille does not teach, applicants argue, ACL control specific to forward pointers in the hierarchical structure of rooms in collaboration space together with ACL control on the parent and child rooms within that space.

That Salas does not teach a double linked list with ACL security on forward pointers in addition to ACL security on the rooms is apparent from examination of Salas Figure 1, which does not show forward and reverse pointers between rooms. In Salas, there is no teaching of forward and reverse pointers linking rooms with ACL security <u>on those forward pointers</u>, as distinguished from and in addition to security on the rooms. While Maurille may disclose forward and reverse pointers, none of Cutler, Maurille or Salas teach ACL security on the forward pointers. Cutler's generic teaching of ACL on objects in an operating system

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domain does not teach the specific configuration of ACL controls on rooms and pointers within a collaboration space domain.

Maurille is cited by the Examiner as teaching databases and pointers linking them, and Applicants agree that such is taught. Cutler is cited by the Examiner as teaching access control lists, and Applicants agree that such is taught. Applicants do not claim they invented forward and reverse pointers between objects in a hierarchy, nor are they claiming they invented access control lists. Rather, Applicants invented a hierarchy of rooms to create a collaboration space with a specific protocol of access control lists, including ACL lists on rooms and additional ACL control specifically on forward pointers used for management of security of rooms within that collaboration space. Neither Maurille, Cutler, nor Salas, taken separately or in combination, teach that protocol, nor would have been in 1999 within the skill of those of ordinary skill in the art of development of collaborative applications to reach the claimed combination from the teachings of the cited references.

In support of applicant's contention that in 1999

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applying computer science concepts of hierarchical trees and
double linked lists to collaborative applications that use
web technologies and browsers as the primary platform of
development was not known to those of ordinary skill in the
art, applicants provide herewith the Declaration under 37
C.F.R. 132 of Miguel A. Estrada.

SUMMARY AND CONCLUSION

Applicants urge that the case be passed to issue with
claims 1-10, 13, and 15.

The Application is believed to be in condition for
allowance and such action by the Examiner is urged. Should
differences remain, however, which do not place one/more of
the remaining claims in condition for allowance, the
Examiner is requested to phone the undersigned at the number
provided below for the purpose of providing constructive
assistance and suggestions in order that allowable claims
can be presented, thereby placing the Application in

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condition for allowance without further proceedings being

necessary.

Sincerely,

J. Estrada, et al.

By

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